AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Previously presented) A method comprising:

receiving a symbol, wherein the symbol is first spread with a spreading code used to spread all symbols to be transmitted and then modulated;

stripping redundancy from the symbol after the receiving the symbol;

despreading the symbol after the stripping the redundancy from the symbol; and

orthogonal frequency division multiplexing (OFDM) demodulating the symbol.

2. (Original) The method of claim 1, wherein the symbol is transmitted over-the-air.

3. (Original) The method of claim 1, wherein the symbol comprises a data symbol, a cyclic redundancy, and at least one replicated symbol, and wherein the stripping comprises:

removing replicated symbols; and

eliminating a cyclic redundancy.

4. (Original) The method of claim 3, wherein the removing comprises coherently combining the replicated symbol with the data symbol and the cyclic redundancy.

5. (Original) The method of claim 4, wherein the replicated symbol is a copy of the data symbol and the cyclic redundancy.

6. (Previously presented) The method of claim 3, wherein the eliminating comprises discarding of the cyclic redundancy. .

7. (Original) The method of claim 1, wherein the despreading comprises applying a spreading code to the symbol.

8. (Original) The method of claim 7, wherein the symbol comprises a data symbol, a cyclic redundancy, and at least one replicated symbol, and wherein the spreading code is applied to the data symbol.

9. (Original) The method of claim 7, wherein the spreading code applied to the symbol is a copy of a spreading code applied to the symbol at a transmitter.

10. (Original) The method of claim 1, wherein the modulation applied to the symbol is orthogonal frequency division multiplexing (OFDM).

11. (Original) The method of claim 10, wherein the demodulating comprises applying a Fourier transform to the symbol.

12. (Original) The method of claim 11, wherein the Fourier transform is a Fast Fourier Transform.

13. (Original) The method of claim 1, wherein at a transmitter, the spreading code is applied to symbols on a symbol by symbol basis prior to transmission.

14. (Currently amended) A method comprising:

receiving a symbol, wherein the symbol is first spread with a spreading code used to spread all symbols to be transmitted and then modulated~~The method of claim 1~~, wherein the receiving comprises:

receiving an analog signal;

extracting a plurality of frequency bands from the analog signal;

mixing each of the frequency bands to an intermediate frequency; and

converting each of the frequency bands into a digital symbol stream;

stripping redundancy from the symbol after the receiving the symbol;

despreading the symbol after the stripping the redundancy from the symbol; and

orthogonal frequency division multiplexing (OFDM) demodulating the symbol.

15. (Original) The method of claim 14, wherein the stripping, despreading, and demodulating are performed to digital symbols in each of the digital symbol streams.

16. (Previously presented) A receiver comprising:

an analog section coupled to a signal input, the analog section containing circuitry to filter and amplify a signal received at the signal input;

an analog-to-digital converter (ADC) coupled to an output of the analog section, the ADC to convert an output of the analog section into a digital symbol stream; and

a digital section coupled to an output of the ADC, the digital section comprising

a redundancy elimination circuit (REC) coupled to the ADC, the REC containing circuitry to remove redundancies inserted into a digital symbol;

a despreader coupled to an output of the REC, the despreader containing circuitry to apply a second spreading code to a digital symbol, one digital symbol at a time; and

an orthogonal frequency division multiplexing (OFDM) demodulator coupled to an output of the despreader, the demodulator containing circuitry to remove modulation applied to the digital symbol.

17. (Original) The receiver of claim 16, wherein at a transmitter, symbols to be transmitted are first spread with a first spreading code and then modulated.

18. (Original) The receiver of claim 17, wherein at the transmitter, each symbol is spread with the first spreading code.

19. (Previously presented) The receiver of claim 17, wherein the second spreading code is a copy of the first spreading code.

20. (Original) The receiver of claim 16, wherein the REC contains circuitry to remove replicated symbols and cyclic redundancies.

21. (Original) The receiver of claim 16, wherein at a transmitter, symbols to be transmitted are modulated using orthogonal frequency division multiplexing (OFDM), and wherein the demodulator applies a Fourier transform to the digital symbol.

22. (Original) The receiver of claim 21, wherein the Fourier transform is a Fast Fourier Transform.

23. (Original) The receiver of claim 16, wherein the digital section further comprises an error correcting code decoder coupled to the demodulator, the error correcting code decoder containing circuitry to remove an error correcting code applied to the digital symbol.

24. (Currently amended) A receiver comprising:

an analog section coupled to a signal input, the analog section containing circuitry to filter and amplify a signal received at the signal input;

an analog-to-digital converter (ADC) coupled to an output of the analog section, the ADC to convert an output of the analog section into a digital symbol stream;

a digital section coupled to an output of the ADC, the digital section comprising

a redundancy elimination circuit (REC) coupled to the ADC, the REC containing circuitry to remove redundancies inserted into a digital symbol;

a despreader coupled to an output of the REC, the despreader containing circuitry to apply a second spreading code to a digital symbol, one digital symbol at a time; and

an orthogonal frequency division multiplexing (OFDM) demodulator coupled to an output of the despreader, the demodulator containing circuitry to remove modulation applied to the digital symbol; and

~~The receiver of claim 16,~~ wherein there are a plurality of ADC and digital sections forming a plurality of ADC and digital units (ADU), and the receiver further comprises a plurality of filters and mixer units, wherein each filter and mixer unit has an input coupled to the analog section and an output coupled to an ADU, the filter and mixer unit containing circuitry to extract a frequency band from a signal provided by the analog section and to mix the frequency band to an intermediate frequency.

25. (Original) The receiver of claim 16, wherein the receiver is part of an ultra-wideband (UWB) communications system.

26. (Currently amended) A receiver comprising:

an analog section coupled to a signal input, the analog section containing circuitry to filter and amplify a signal received at the signal input;

an analog-to-digital converter (ADC) coupled to an output of the analog section, the ADC to convert an output of the analog section into a digital symbol stream;

a digital section coupled to an output of the ADC, the digital section comprising:

a redundancy elimination circuit (REC) coupled to the ADC, the REC containing circuitry to remove redundancies inserted into a digital symbol;

a despreader coupled to an output of the REC, the despreader containing circuitry to apply a second spreading code to a digital symbol, one digital symbol at a time; and

an orthogonal frequency division multiplexing (OFDM) demodulator coupled to an output of the despreader, the demodulator containing circuitry to remove modulation applied to the digital symbol; and

~~The receiver of claim 25,~~ wherein the receiver is part of a multi-carrier ultra-wideband (UWB) communications system ~~is a multi-carrier communications system~~.